

IN THE CLAIMS

Please amend the claims as follows:

1. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) for simultaneously transmitting at least a first ( $s'_1$ ) and a second ( $s'_2$ ) signal, the first signal ( $s'_1$ ) being modulated according to a first modulation constellation, the second signal ( $s'_2$ ) being modulated according to a second modulation constellation, wherein the transmitter is arranged to pre-code at least the first signal ( $s'_1$ ) through a modification of the first modulation constellation so as to prevent a correlation between the at least first ( $s'_1$ ) and second ( $s'_2$ ) simultaneously transmitted signals.
2. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim 1, wherein the pre-coding of at least the first signal ( $s'_1$ ) comprises a rotation of the first modulation constellation through a first angle.
3. (original) Transmitter ( $Tx_1$ ,  $Tx_2$ ) according to claim 1, wherein the pre-coding of at least the first signal ( $s'_1$ ) comprises a change of the order of the first modulation constellation.

4. (original) Transmitter (Tx<sub>1</sub>, Tx<sub>2</sub>) according to claim 3, wherein the pre-coding further comprises a change of the number of simultaneously transmitted signals (s'<sub>1</sub>, s'<sub>2</sub>).

5. (original) Transmitter (Tx<sub>1</sub>, Tx<sub>2</sub>) according to claim 1, wherein the transmitter is arranged to pre-code at least the first (s'<sub>1</sub>) signal after receipt of a first signal from a receiver (Rx<sub>1</sub>, Rx<sub>2</sub>) of the at least first (s'<sub>1</sub>) and second (s'<sub>2</sub>) simultaneously transmitted signals.

6. (original) Transmitter (Tx<sub>1</sub>, Tx<sub>2</sub>) according to claim 1, wherein the transmitter is arranged to transmit a second signal to a receiver (Rx<sub>1</sub>, Rx<sub>2</sub>) of the at least first (s'<sub>1</sub>) and second signals (s'<sub>2</sub>) in order to notify the receiver about the pre-coding of at least the first (s'<sub>1</sub>) signal.

7. (currently amended) Transmitter (Tx<sub>1</sub>, Tx<sub>2</sub>) according to claim 1, 2, 3 and 4, wherein the first and second modulation constellations are M-ary QAM modulation constellations.

8. (original) Receiver (Rx<sub>1</sub>, Rx<sub>2</sub>) for simultaneously receiving at least a first (s'<sub>1</sub>) and a second (s'<sub>2</sub>) signal from a transmitter (Tx<sub>1</sub>, Tx<sub>2</sub>), the first received signal (s'<sub>1</sub>) being modulated

according to a first modulation constellation, the second received signal ( $s'_2$ ) being modulated according to a second modulation constellation, in which at least the first received signal ( $s'_1$ ) is pre-coded through a modification of the first modulation constellation so as to prevent a correlation between the at least first ( $s'_1$ ) and second ( $s'_2$ ) simultaneously received signals.

9. (original) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, wherein the pre-coding of the first ( $s'_1$ ) received signal comprises a rotation of the first modulation constellation.

10. (original) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, wherein the pre-coding of the first ( $s'_1$ ) received signal comprises a change of the order of the first modulation constellation.

11. (original) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, wherein the pre-coding further comprises a change of the number of simultaneously received signals ( $s'_1$ ,  $s'_2$ ).

12. (original) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, wherein the receiver is arranged to transmit a first signal to the transmitter in a response to which the transmitter is arranged to pre-code at least the first ( $s'_1$ ) signal.

13. (original) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, wherein the receiver is arranged to receive a second signal from the transmitter ( $Tx_1$ ,  $Tx_2$ ) in a response to the transmitter pre-coding at least the first ( $s'_1$ ) signal.

14. (currently amended) Receiver ( $Rx_1$ ,  $Rx_2$ ) according to claim 8, 9, 10 and 11, wherein the first and second modulation constellations are M-ary QAM modulation constellations.

15. (original) Transceiver comprising a transmitter according to claim 1.

16. (currently amended) Transceiver according to claim 15, further comprising a receiver according to claim 8.  $Rx_1$ ,  $Rx_2$  for simultaneously receiving at least a first ( $s'_1$ ) and a second ( $s'_2$ ) signal from a transmitter ( $Tx_1$ ,  $Tx_2$ ), the first received signal ( $s'_1$ ) being modulated according to a first modulation constellation, the second received signal ( $s'_2$ ) being modulated according to a second modulation constellation, in which at least the first received signal ( $s'_1$ ) is pre-coded through a modification of the first modulation constellation so as to prevent a correlation

between the at least first (s'1) and second (s'2) simultaneously received signals.

17. (original) Wireless device comprising a transmitter according to claim 1.

18. (original) Telecommunication system comprising a transmitter according to claim 1.